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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/815,942

04/02/2004

Antoon Johannes Gerardus van Rossum

005032.00053

8940

22907 7590 03/18/2008

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EXAMINER

BLAN, NICOLE R

ART UNIT

PAPER NUMBER

1792

MAIL DATE

DELIVERY MODE

03/18/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/815,942	<b>Applicant(s)</b> VAN ROSSUM ET AL.	
	<b>Examiner</b> NICOLE BLAN	<b>Art Unit</b> 1792	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 07 December 2007.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 29-41 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 29-41 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>01162008</u> .  | 6) <input type="checkbox"/> Other: _____                          |

### **DETAILED ACTION**

1. This case has been reopened after the pre-appeal conference.

#### ***Claim Rejections - 35 USC § 112***

2. Claims 29 and 41 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 29 and 41: Applicants' state "...the protective coating is removable with a removing agent comprising a base and a complex former." The fact that the coating is removable is not actually part of the greenhouse. It is unclear how this limitation is directed to the polymer layer and the greenhouse. How it is removed and what it is removed with is irrelevant.

#### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

5. Claims 29-37 and 39-41 are rejected under 35 U.S.C. 103(a) as being unpatentable over van Rossum et al. (EP 0478067, hereinafter EP-067), and in view of Yoshida et al. (U.S. Patent 5,574,117, hereinafter '117).

Claims 29-37 and 39-41: EP-067 teaches a removable protective coating [it is inherent that the coating is adhered to outer surface otherwise it would not need to be removed] on a transparent surface such as the outer surface or a greenhouse [page 2, lines 1-3] for preventing burning of the plants. EP-067 further teaches that the coating comprises a divided pigment, such as, calcium carbonate [reads on "the pigment" of claim 35 and "pigment divider" in claim 39; page 2, lines 57-58; page 3] and a binder EP-067 teaches that the coating is removable using sodium hydroxide and complex shapers such as trisodium salt [reads on "a base" and "a complex former" in claims 29 and 41].

EP-067 does not teach the specific properties of the polymer. However, EP-067 teaches other copolymers based on carboxylic residues. '117 teaches that it is known to use an acrylic polymer (i.e., a polymer based on carboxylic acid residues) within the claimed weight-average molecular weight [10,000 to 500,000; col. 7, lines 45-46], the claimed acid value [65 mg/g; col. 7, line 44], the claimed polydispersity [4; col. 7, lines 47-48], and the claimed glass transition temperature [0°C or higher; col. 7, lines 46-47] in a removable protective coating [col. 1, lines 12-15; col. 8, lines 25-27].

'117 teaches that the weight-average molecular weight, the acid value, polydispersity, and the glass transition temperature can be optimized [see cols. 20-69]. It would have been obvious to one of ordinary skill in the art at the time the invention was made to optimize the following properties of the polymer: weight-average molecular weight, acid value,

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polydispersity, and the glass transition temperature, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 220 F.2d 454, 456, 105 USPQ 233, 235 (CCPA 1955).

'117 further teaches that for an alkali soluble adhesive the polymer binder is combined with solvent wax, tackifier, and if 100 parts of a polymer is combined with 0-400 parts of solvent, 0-50 parts of wax, and 0-50 parts of tackifier [col. 7, lines 17-22], then the amount of a binder as set forth in the instant claims 34 and 36 is clearly within the claimed range.

Furthermore, '117 teaches the use of adhesion promoters [reads on claim 37; col. 5, lines 34-39] and of polycarboxylic acid thickener [reads on claim 40; col. 39, 48-49].

Regarding the recitation "removing the protective coating with a removing agent comprising a base and a complex former" in claims 29 and 41, this recitation is a statement of intended use (even though EP-067 teaches this limitation). The polymer is known and presumed to have the same properties of it being adhered to glass, since the prior art teaches it is capable of being performed. See MPEP 2114.

6. Claim 38 is rejected under 35 U.S.C. 103(a) as being unpatentable over EP-067 and '117 as applied to claim 29 above, and further in view of Wieczorrek (U.S. Patent 4,409,266, hereinafter '266).

Claim 38: EP-067 and '117 teach the limitations of claim 29 above. They do not explicitly teach silanes as adhesion promoters. '266 teaches a shatterproof coating of glass surfaces by coating the surfaces with a coating composition. The glass surfaces to be coated before application of the coating composition with a physically drying priming lacquer

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containing a silane adhesion promoter and a catalyst which accelerates hardening of the coating composition [abstract]. All of the above references are concerned with a protective coating applied to surface with adhesion promoters. It would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize the silane adhesion promoter of '266 in the coating of EP-067/'117 because '266 teaches that it is a suitable material for use as an adhesion promoter.

7. Claims 29-37 and 40-41 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 51127181, and in view of '117.

Claims 29-37 and 40-41: JP-181 teaches a light-selective transmitting film comprising polyalkyl methacrylate type copolymer films as the base material and a metal oxide film above it (i.e. the copolymer film is a coating on the metal oxide film; bridging paragraph of pages 4-5), films transmitting  $\geq 30\%$  of light of 0.4 to 0.7  $\mu$ m in wavelength and reflecting  $\geq 20\%$  of light of 2 to 10  $\mu$ m in wavelength. Copolymer films formed by copolymerizing 26 to 97 wt. % of alkyl methacrylates containing 1-4C alkyl, 3-74 wt.% of alkyl acrylates having 1-8C alkyl and 0-40 wt.% of copolymerizing monomers (methacrylic acid, acrylonitrile, styrene, etc.) [abstract] for use as a greenhouse film [last 2 sentences of page 8 and the first 6 lines of page 9].

JP-181 teaches the use of a copolymer film on a greenhouse in order to accelerate the growth of plants. JP-181 does not teach the specific properties of the polymer. However, '117 teaches an alkali soluble film, comprising an acrylic polymer as a binder, which acrylic polymer is obtained by bulk polymerization and has a number average molecular weight of 1,000 to 1,000,000, a polydispersity of 5 or less, and a glass transition temperature of the binder of  $-80^{\circ}\text{C}$  or higher [abstract]. The specific monomers named in the instant claim 29 are found '117's

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examples, such as Example 1-1 [cols. 43-44], Example 2-27 [col. 53], and others. As for the acid value, the broad teaching of '117 is that the acid value is higher than 65 mg/g [col. 7, line 44]. Specifically, example 2-21 shows the production of a polymer, which has a weight average molecular weight of 32,000, a polydispersity of 2.2, and an acid value of 160 mg/g [reads on claims 29-32]

As stated above, '117 teaches that the glass transition temperature is -80°C or higher. With respect to claims 33 and 41, '117 teaches that the glass transition temperature can be 0°C or higher [col. 7, lines 46-47] or 30°C or higher [col. 9, line 20]. It would have been obvious to one of ordinary skill in the art at the time the invention was made to optimize the glass transition temperature, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 220 F.2d 454, 456, 105 USPQ 233, 235 (CCPA 1955).

'117 further teaches that for an alkali soluble adhesive the polymer binder is combined with solvent wax, tackifier, and if 100 parts of a polymer is combined with 0-400 parts of solvent, 0-50 parts of wax, and 0-50 parts of tackifier [col. 7, lines 17-22], then the amount of a binder as set forth in the instant claims 34 and 36 is clearly within the claimed range.

'117 teaches the use of calcium carbonate as a pigment [reads on claim 35; col. 5, lines 35-40] as well as the use of adhesion promoters [reads on claim 37; col. 5, lines 34-39] and of a polycarboxylic acid thickener [reads on claim 40; col. 39, 48-49].

JP-181 and '117 disclose substantially identical polymer films, wherein JP-181 teaches the use of these polymers for coating the surface of a greenhouse and '117 teaches the specific characteristics as instantly claimed. Therefore, there is a clear motivation and suggestion in both

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references to use the polymer film of '117 as a coating to a greenhouse as taught by JP-181.

Regarding the recitation "removing the protective coating with a removing agent comprising a base and a complex former" in claims 29 and 41, this recitation is a statement of intended use (even though EP-067 teaches this limitation). The polymer is known and presumed to have the same properties of it being adhered to glass, since the prior art teaches it is capable of being performed. See MPEP 2114.

8. Claim 38 is rejected under 35 U.S.C. 103(a) as being unpatentable over JP-181 and '117 as applied to claim 29 above, and further in view of Wieczorrek (U.S. Patent 4,409,266, hereinafter '266).

Claim 38: JP-181 and '117 teach the limitations of claim 29 above. They do not explicitly teach silanes as adhesion promoters. '266 teaches a shatterproof coating of glass surfaces by coating the surfaces with a coating composition. The glass surfaces to be coated before application of the coating composition with a physically drying priming lacquer containing a silane adhesion promoter and a catalyst which accelerates hardening of the coating composition [abstract]. All of the above references are concerned with a protective coating applied to surface with adhesion promoters. It would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize the silane adhesion promoter of '266 in the coating of JP-181/'117 because '266 teaches that it is a suitable material for use as an adhesion promoter.



***Information Disclosure Statement***

9. The references on the IDS that have been lined through are either duplicate documents from an earlier submitted IDS or for failing to provide an explanation as to the relevance of the documents to the submitted application.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to NICOLE BLAN whose telephone number is (571)270-1838. The examiner can normally be reached on Monday - Thursday 8-5 and alternating Fridays 8-4.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Cleveland can be reached on 571-272-1418. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/N. B./  
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/Michael Cleveland/

Supervisory Patent Examiner, Art Unit 1792